

Baltimore City Department of Public Works Storm Water Engineering Abel Wolman Municipal Building 200 N. Holliday Street Baltimore, MD 21202

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DRAWING:	
ENGINEER:	
REVIEWER:	
DATE:	

## STORM WATER ENGINEERING - REVEW CHECKLIST

I. PLAN REQUIREMENTS
A. Vicinity Map1. North arrow and scale.
B. Drainage area map and flow tabulations shown on plan.
C. Drafting and format for plan in accordance with Baltimore City "Manual of Design Criteria"  Section 1 General instructions – Appendix
D. Scale, North Arrow and grid ticks (Baltimore City Survey Control)
E. Drainage District, W&WW Plat Reference, Benchmark and Elevation
F. All Existing Utilities shown and labeled with drawing reference.
G. Right-of-Way line clearly shown.
H. Proposed Storm Drains labeled with size type and south azimuth indicating direction (not needed for inlet connections.
I. Structures indicated on Plan with appropriate Baltimore City reference (e.g., Type 'E' Inlet BC 376.13)
J. Easements1. Bearings and distances labeled.
2. Easement width adequate for storm drain.
3. Identify easements to be extinguished for utility relocation.
K. Title block, Signature and Certifications
1. Engineers Seal and signature
2. City Agency initial boxes(all pages for PWDA)
3. Signature lines for Utility Engineering Chief, Division Chief, Bureau Head and Director (PWDA)
L. SWE File Ref. Number (provide to engineer on preliminary review).

 II. PROFILE REQUIREMENTS
A. Pipe Size,type and slope.
B. Stationing shown on profile.
C. Manhole channels labeled.
D. Flow Rate (cfs) and velocity (fps) with subscript indicating design storm (e.g. $Q_{10}$ =cfs, $V_{10}$ =fps )
E. Hydraulic Grade Line (HGL) with storm frequency (e.g. 10-Year HGL)
F. Pipe Inverts in and out of structure
G. Existing and proposed grade lines.
H. All existing and proposed utility crossings. Minimum 12" clear from storm drains.
_III. <u>DETAILS</u>
A. Collar tap details shown (size limitations per Criteria page 4-12).
B. Junction chambers, special manholes, and misc. structures detailed.
C. Provide structural computations.
IV. <u>DESIGN</u>
A. Sufficient number of inlets. Check spacing and capacity.
B. Gutter Flow and maximum permissible spread per Criteria (page 4-10).
C. Only combination inlets in sumps.
D. Pipe class/type adequate for depth and application
E. Pipe size adequate for flow rate as determined from hydrology.
F. Appropriate Design Strom used for hydrology (per City design Manual).
G. Pine conduit location